

# Platelets . . . the link to life

## Why do you call platelets "the link to life"?

We call platelets "the link to life" because their purpose is just that: they help those who are ill to hold on to life. Platelets do not *cure* disease; they give people time. Ideally, time for a treatment to work, or a cure to be found, or even time for a patient to manufacture his or her own platelets once again.

## What are platelets?

Platelets are small cells that help the blood clot. Manufactured in the bone marrow and stored in the spleen, their job is to rush to the site of an injury in the body. Once there they form a barrier, help the damaged organ or blood vessel to stop bleeding and give the body a chance to begin healing.

## Who needs platelets?

Children and adults with life threatening illnesses such as leukemia, aplastic anemia, cancer, and other diseases of the blood, often need transfusions of platelets to help their blood clot. Because of bone marrow malfunction or chemotherapy their bodies are unable to produce platelets.

## Do platelets have to match the way blood does?

No. Fortunately, most patients will benefit from transfusions of platelets from any healthy donor. Their blood types need not match. Sometimes, however, patients do need what we call HLA (Human Leukocyte Antigen) matched platelets. This means that the HLA types of donor and patient must match in order for the donor's platelets to help the patient. If a patient needs matched platelets, and if your HLA type matches his or hers, we will ask you to consider making a donation. Meanwhile, you can donate unmatched platelets as frequently as twice a month.

## What is plateletpheresis?

Apheresis (ay-fur-ee-sis) means "to take away from". Simply, plateletpheresis is the procedure, which enables us to take away from healthy donors a small percentage of their platelets so that we may transfuse them to seriously ill patients. During an automated procedure we collect approximately one-tenth of the circulating platelets, an amount easily spared by the donor and regenerated in a day or two. At the same time, even as we collect platelets, other components of the blood are being returned to the donor. A platelet collection takes less than two hours.

## How does the apheresis procedure work?

Our new automated blood component collection system, Trima, allows donors to safely provide combinations of red cells, platelets and plasma from a single donation. Like whole blood, the process uses a sterile, single-use needle and tubing set. The automated system separates and collects the most needed components and then safely returns the remaining blood components back to you. Blood is drawn from your arm through sterile tubing into a centrifuge. The centrifuge spins the blood to separate the components, which vary in weight and density. The platelets are drawn into a collection bag, while remaining blood components are returned to you.

## Why is blood separated?

Different patients need different types of blood components, depending on the illness or injury. After you donate whole blood, the unit is separated into platelets, red cells and plasma in our facility.

Six whole blood donations must be separated to provide a single platelet transfusion. However, one apheresis provides enough platelets for one complete transfusion.

## Do you really need platelet donors?

Yes, we really need platelet donors. We need them every day of the year. Because platelets can be stored for only five days, the need for donors is constant. We need the kind of people who can and will give a few hours of their time to try to save the life of a stranger.

## You can help!

If you are at least 18 years old and in good health, your platelets could help save a life. Why not Link Up With Life? Make a date to give platelets today!

When you schedule an appointment, we will ask further detailed medical questions, check your vital signs, and test your blood, to protect you as well as the recipient of your platelets. Within 72 hours after donating, your blood will be back to normal. You will then be able to resume giving whole blood or another donation of platelets.

The collection kits used with the apheresis machines are completely disposable and are discarded after each donor's procedure has been completed. The collection kits are completely sealed units so your blood never comes in contact with any outside surface. Therefore, the donor is *never* at risk for transfusion related diseases, such as hepatitis or AIDS, from donating platelets.

*Platelet transfusions are needed each year by thousands of patients like these.*

*Heart surgery patient -- 6 units of platelets*

*Burn patient -- 20 units of platelets*

*Organ transplant patient -- 30 units of platelets*

*Bone marrow transplant patient -- 120 units of platelets*

By encouraging your people to become apheresis donors at the Naval Medical Center Blood Donor Center, They can become part of a special group of donors who take an extra step to help patients receive the support they need.

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